

**TABLE E-1**  
**EXPOSURE POINT CONCENTRATION (mg/kg)**  
**BACKGROUND SOIL**

Parameter	Average		95% UCL	Statistic Used
Antimony	9.53E-01		2.19E+00	Maximum*
Barium	3.33E+02		5.02E+02	95% Approx. Gamma
Benzo(a)anthracene	1.16E-02		4.57E-02	95% Chebyshev
Benzo(a)pyrene	1.22E-02		4.31E-02	95% Chebyshev
Benzo(b)fluoranthene	9.41E-03		3.25E-02	95% Chebyshev
Benzo(g,h,i)perylene	2.41E-02		5.27E-02	95% Chebyshev
Benzo(k)fluoranthene	1.58E-02		5.95E-02	95% Chebyshev
Cadmium	3.11E-02		1.10E-01	Maximum*
Chromium	1.52E+01		1.70E+01	95% Student's-t
Chrysene	1.45E-02		4.77E-02	95% Chebyshev
Copper	1.21E+01		1.44E+01	95% Student's-t
Fluoranthene	2.08E-02		1.56E-01	Maximum*
Indeno(1,2,3-cd)pyrene	5.51E-02		4.17E-01	Maximum*
Lead	1.34E+01		1.43E+01	95% Student's-t
Lithium	2.11E+01		2.41E+01	95% Student's-t
Manganese	3.77E+02		4.32E+02	95% Student's-t
Mercury	2.13E-02		2.41E-02	95% Student's-t
Phenanthrene	1.67E-02		1.37E-01	Maximum*
Pyrene	2.18E-02		7.28E-02	95% Chebyshev
Zinc	2.47E+02		9.69E+02	Maximum*
LPAH	1.67E-02		1.37E-01	
HPAH	1.85E-01		9.27E-01	
TOTAL PAHs	2.02E-01		1.06E+00	

Notes:

\* Recommended UCL exceeds maximum observation so the maximum measured concentration was used

TABLE E-2  
TOXICITY REFERENCE VALUES

Parameter	Earthworm (mg/kg)	Ref.	Comments	Deer Mouse (mg/kgBW-day)	Ref.	Comments	Coyote (mg/kgBW-day)	Ref.	Comments	Least Shrew (mg/kgBW-day)	Ref.	Comments	American Robin (mg/kgBW-day)	Ref.	Comments	Red-tailed Hawk (mg/kgBW-day)	Ref.	Comments
Antimony	3.00E+01	EPA, 2005a	EC20 for earthworms	1.25E-01	Sample, 1996	Chronic LOAEL in mouse with an uncertainty factor of 0.1	1.25E-01	Sample, 1996	Chronic LOAEL in mouse with an uncertainty factor of 0.1	1.25E-01	Sample, 1996	Chronic LOAEL in mouse with an uncertainty factor of 0.1						
Barium	3.30E+02	EPA, 2005g	Geometric mean of the EC20 values for three test species under three separate test conditions of pH	5.18E+01	EPA, 2005g	Geometric mean of NOAEL values for reproduction and growth	5.18E+01	EPA, 2005g	Geometric mean of NOAEL values for reproduction and growth	5.18E+01	EPA, 2005g	Geometric mean of NOAEL values for reproduction and growth	1.91E+01	EPA, 1999		3.15E+01	EPA, 1999	
Benzo(a)anthracene																		
Benzo(a)pyrene																		
Benzo(b)fluoranthene																		
Benzo(g,h,i)perylene																		
Benzo(k)fluoranthene																		
Cadmium	1.00E+01	EPA, 1999	Chronic (4-month) NOAEL for cocoon production in earthworm (dose 10)	7.70E-01	EPA, 2005b	Highest bounded NOAEL for growth and reproduction lower than the lowest bounded LOAEL for reproduction, growth, and survival	7.70E-01	EPA, 2005b	Highest bounded NOAEL for growth and reproduction lower than the lowest bounded LOAEL for reproduction, growth, and survival	7.70E-01	EPA, 2005b	Highest bounded NOAEL for growth and reproduction lower than the lowest bounded LOAEL for reproduction, growth, and survival	1.47E+00	EPA, 1999	Geometric mean of NOAEL values for reproduction and growth	1.47E+00	EPA, 1999	Geometric mean of NOAEL values for reproduction and growth
Chromium	5.70E+01	EPA, 2005c	Maximum acceptable toxicant concentration (MATC) for reproductive effects in earthworm	2.40E+00	EPA, 2005c	Geometric mean of NOAEL values for reproduction and growth	2.40E+00	EPA, 2005c	Geometric mean of NOAEL values for reproduction and growth	2.40E+00	EPA, 2005c	Geometric mean of NOAEL values for reproduction and growth	2.66E+00	EPA, 2005c	Geometric mean of the NOAEL values for reproduction and growth	2.66E+00	EPA, 2005c	Geometric mean of the NOAEL values for reproduction and growth
Chrysene																		
Copper	8.00E+01	EPA, 2007c	Geometric mean of the MATC and EC10 values for six test species under different test species	5.60E+00	EPA, 2007c	Highest bounded NOAEL for growth and reproduction lower than the lowest bounded LOAEL for reproduction, growth, and survival	5.60E+00	EPA, 2007c	Highest bounded NOAEL for growth and reproduction lower than the lowest bounded LOAEL for reproduction, growth, and survival	5.60E+00	EPA, 2007c	Highest bounded NOAEL for growth and reproduction lower than the lowest bounded LOAEL for reproduction, growth, and survival	4.05E+00	EPA, 2007c	Highest bounded NOAEL for growth and reproduction lower than the lowest bounded LOAEL for reproduction, growth, and survival	4.05E+00	EPA, 2007c	Highest bounded NOAEL for growth and reproduction lower than the lowest bounded LOAEL for reproduction, growth, and survival
Fluoranthene																		
Indeno(1,2,3-cd)pyrene																		
Lead	1.70E+03	EPA, 2005e	Geometric mean of MATC values for one test species under different pH	4.70E+00	EPA, 2005e	Highest bounded NOAEL for growth and reproduction lower than the lowest bounded LOAEL for reproduction, growth, and survival	4.70E+00	EPA, 2005e	Highest bounded NOAEL for growth and reproduction lower than the lowest bounded LOAEL for reproduction, growth, and survival	4.70E+00	EPA, 2005e	Highest bounded NOAEL for growth and reproduction lower than the lowest bounded LOAEL for reproduction, growth, and survival	1.63E+00	EPA, 2005e	Highest bounded NOAEL for growth and reproduction lower than the lowest bounded LOAEL for reproduction, growth, and survival	1.63E+00	EPA, 2005e	Highest bounded NOAEL for growth and reproduction lower than the lowest bounded LOAEL for reproduction, growth, and survival
Lithium				1.10E+01	Sample, 1996		7.50E+00	Sample, 1996		1.20E+01	Sample, 1996							
Manganese				1.06E+02	Sample, 1996		7.00E+01	Sample, 1996		1.15E+02	Sample, 1996		9.98E+02	Sample, 1996		1.64E+03	Sample, 1996	
Mercury	2.50E+00	EPA, 1999	Toxicity value not available -- TRV for methyl mercury was used as a surrogate	1.01E+00	EPA, 1999	Chronic (6-months) NOAEL for reproduction in mink (dose 1.01 with uncertainty factor of 1)	1.01E+00	EPA, 1999	Chronic (6-months) NOAEL for reproduction in mink (dose 1.01 with uncertainty factor of 1)	1.01E+00	EPA, 1999	Chronic (6-months) NOAEL for reproduction in mink (dose 1.01 with uncertainty factor of 1)	3.25E+00	EPA, 1999	Acute (5 days) LOAEL for mortality in coturnix quail (dose 325 with uncertainty factor of 0.01)	3.25E+00	EPA, 1999	Acute (5 days) LOAEL for mortality in coturnix quail (dose 325 with uncertainty factor of 0.01)
Phenanthrene																		
Pyrene																		
Zinc	1.20E+02	EPA, 2007e	Geometric mean of the MATC and EC10 values for three test species under different test species	7.54E+01	EPA, 2007e	Geometric mean of NOAEL values for reproduction and growth	7.54E+01	EPA, 2007e	Geometric mean of NOAEL values for reproduction and growth	7.54E+01	EPA, 2007e	Geometric mean of NOAEL values for reproduction and growth	6.61E+01	EPA, 2007e	Geometric mean of NOAEL values within the reproductive and growth effect groups	6.61E+01	EPA, 2007e	Geometric mean of NOAEL values within the reproductive and growth effect groups
LPAH	2.90E+01	EPA, 2007b		6.56E+01	EPA, 2007b	Highest bounded NOAEL for growth and reproduction lower than the lowest bounded LOAEL for reproduction, growth, and survival	6.56E+01	EPA, 2007b	Highest bounded NOAEL for growth and reproduction lower than the lowest bounded LOAEL for reproduction, growth, and survival	6.56E+01	EPA, 2007b	Highest bounded NOAEL for growth and reproduction lower than the lowest bounded LOAEL for reproduction, growth, and survival	6.56E+01		Mammalian TRV	6.56E+01		Mammalian TRV
HPAH	1.80E+01	EPA, 2007b		6.15E-01	EPA, 2007b	Highest bounded NOAEL for growth and reproduction lower than the lowest bounded LOAEL for reproduction, growth, and survival	6.15E-01	EPA, 2007b	Highest bounded NOAEL for growth and reproduction lower than the lowest bounded LOAEL for reproduction, growth, and survival	6.15E-01	EPA, 2007b	Highest bounded NOAEL for growth and reproduction lower than the lowest bounded LOAEL for reproduction, growth, and survival	6.15E-01		Mammalian TRV	6.15E-01		Mammalian TRV
TOTAL PAHs																		

Notes:  
EPA, 2007a -- DDT  
EPA, 2007b -- PAHs  
EPA, 2007c -- Copper  
EPA, 2007d -- Nickel  
EPA, 2007e -- Zinc  
EPA, 2007f -- Selenium  
EPA, 2005a -- Antimony  
EPA, 2005b -- Cadmium  
EPA, 2005c -- Chromium  
EPA, 2005d -- Vanadium  
EPA, 2005e -- Lead  
EPA, 2005f -- Dieldrin  
EPA, 2005g -- Barium

**TABLE E-3  
ECOLOGICAL HAZARD QUOTIENT CALCULATIONS FOR BACKGROUND SOIL  
EARTHWORM**

Ecological Hazard Quotient = $Sc/TRV$					
Parameter	Definition	Default			
Sc	Soil Concentration (mg/kg)	see below			
TRV	Toxicity Reference Value (mg/kg)	see TRV summary page			
Chemical	Average Sc	RME Sc	TRV (earthworm)	Average EHQ	RME EHQ
Antimony	9.53E-01	2.19E+00	3.00E+01	3.18E-02	7.30E-02
Barium	3.33E+02	5.02E+02	3.30E+02	1.01E+00	1.52E+00
Benzo(a)anthracene	1.16E-02	4.57E-02			
Benzo(a)pyrene	1.22E-02	4.31E-02			
Benzo(b)fluoranthene	9.41E-03	3.25E-02			
Benzo(g,h,i)perylene	2.41E-02	5.27E-02			
Benzo(k)fluoranthene	1.58E-02	5.95E-02			
Cadmium	3.11E-02	1.10E-01	1.00E+01	3.11E-03	1.10E-02
Chromium	1.52E+01	1.70E+01	5.70E+01	2.67E-01	2.97E-01
Chrysene	1.45E-02	4.77E-02			
Copper	1.21E+01	1.44E+01	8.00E+01	1.52E-01	1.80E-01
Fluoranthene	2.08E-02	1.56E-01			
Indeno(1,2,3-cd)pyrene	5.51E-02	4.17E-01			
Lead	1.34E+01	1.43E+01	1.70E+03	7.90E-03	8.43E-03
Lithium	2.11E+01	2.41E+01			
Manganese	3.77E+02	4.32E+02			
Mercury	2.13E-02	2.41E-02	2.50E+00	8.52E-03	9.64E-03
Phenanthrene	1.67E-02	1.37E-01			
Pyrene	2.18E-02	7.28E-02			
Zinc	2.47E+02	9.69E+02	1.20E+02	2.06E+00	8.08E+00
LPAH	1.67E-02	1.37E-01	2.90E+01	5.76E-04	4.72E-03
HPAH	1.85E-01	9.27E-01	1.80E+01	1.03E-02	5.15E-02
TOTAL PAHs	2.02E-01	1.06E+00			

**TABLE E-4  
INTAKE CALCULATIONS FOR BACKGROUND SOIL  
DEER MOUSE**

SOIL INGESTION						
INTAKE = (Sc * IR * AF * AUF) / (BW)						
Parameter	Definition	Value		Reference		
Intake	Intake of chemical (mg/kg-day)	calculated				
Sc	Soil concentration (mg/kg)	see data page				
IR	Ingestion rate of soil (kg/day)	5.68E-05		EPA, 2009 (normalized for bw)		
AF	Chemical Bioavailability in soil (unitless)	1		EPA, 1997		
AUF	Area Use Factor	1		EPA, 1997		
BW	Body weight (kg)	1.48E-02		EPA, 1999		
Chemical	Average Sc	RME Sc	Average Intake	RME Intake		
Antimony	9.53E-01	2.19E+00	3.66E-03	8.40E-03		
Barium	3.33E+02	5.02E+02	1.28E+00	1.93E+00		
Benzo(a)anthracene	1.16E-02	4.57E-02	4.45E-05	1.75E-04		
Benzo(a)pyrene	1.22E-02	4.31E-02	4.68E-05	1.65E-04		
Benzo(b)fluoranthene	9.41E-03	3.25E-02	3.61E-05	1.25E-04		
Benzo(g,h,i)perylene	2.41E-02	5.27E-02	9.25E-05	2.02E-04		
Benzo(k)fluoranthene	1.58E-02	5.95E-02	6.06E-05	2.28E-04		
Cadmium	3.11E-02	1.10E-01	1.19E-04	4.22E-04		
Chromium	1.52E+01	1.70E+01	5.83E-02	6.51E-02		
Chrysene	1.45E-02	4.77E-02	5.56E-05	1.83E-04		
Copper	1.21E+01	1.44E+01	4.65E-02	5.53E-02		
Fluoranthene	2.08E-02	1.56E-01	7.98E-05	5.99E-04		
Indeno(1,2,3-cd)pyrene	5.51E-02	4.17E-01	2.11E-04	1.60E-03		
Lead	1.34E+01	1.43E+01	5.15E-02	5.50E-02		
Lithium	2.11E+01	2.41E+01	8.11E-02	9.26E-02		
Manganese	3.77E+02	4.32E+02	1.45E+00	1.66E+00		
Mercury	2.13E-02	2.41E-02	8.17E-05	9.25E-05		
Phenanthrene	1.67E-02	1.37E-01	6.41E-05	5.26E-04		
Pyrene	2.18E-02	7.28E-02	8.37E-05	2.79E-04		
Zinc	2.47E+02	9.69E+02	9.48E-01	3.72E+00		
LPAH	1.67E-02	1.37E-01	6.41E-05	5.26E-04		
HPAH	1.85E-01	9.27E-01	7.11E-04	3.56E-03		
TOTAL PAHs	2.02E-01	1.06E+00	7.75E-04	4.08E-03		
FOOD INGESTION						
INTAKE = ((Ca * IR * DFa * AUF) / (BW)) + ((Cp * IR * DFs * AUF)/(BW))						
Parameter	Definition	Value		Reference		
Intake	Intake of chemical (mg/kg-day)	calculated				
Ca	Arthropod concentration (mg/kg)	see FoodConc page				
Cp	Plant concentration (mg/kg)	see FoodConc page				
IR	Ingestion rate of food (kg/day)	2.84E-03		EPA, 1999 (normalized for bw)		
Dfa	Dietary fraction of arthropods (unitless)	1.00E-01		EPA, 1993		
Dfs	Dietary fraction of plants, seeds and other vegetation (unitless)	9.00E-01		EPA, 1993		
AUF	Area Use Factor	1		EPA, 1997		
BW	Body weight (kg)	1.48E-02		EPA, 1999		
Chemical	Average Arthropod	RME Arthropod	Average Plant	RME Plant	Average Intake	RME Intake
Antimony	2.10E-01	4.82E-01	1.91E-01	4.38E-01	3.69E-02	8.49E-02
Barium	7.33E+01	1.11E+02	5.00E+01	7.53E+01	1.00E+01	1.51E+01
Benzo(a)anthracene	3.48E-04	1.37E-03	2.34E-04	9.23E-04	4.71E-05	1.86E-04
Benzo(a)pyrene	8.54E-04	3.02E-03	1.23E-04	4.35E-04	3.77E-05	1.33E-04
Benzo(b)fluoranthene	6.59E-04	2.28E-03	9.50E-05	3.28E-04	2.91E-05	1.00E-04
Benzo(g,h,i)perylene	1.69E-03	3.69E-03	4.87E-04	1.06E-03	1.16E-04	2.55E-04
Benzo(k)fluoranthene	1.26E-03	4.76E-03	1.60E-04	6.01E-04	5.18E-05	1.95E-04
Cadmium	2.99E-02	1.06E-01	1.13E-02	4.00E-02	2.53E-03	8.94E-03
Chromium	1.52E-01	1.70E-01	1.14E-01	1.27E-01	2.26E-02	2.52E-02
Chrysene	5.80E-04	1.91E-03	2.71E-04	8.92E-04	5.80E-05	1.91E-04
Copper	4.85E-01	5.76E-01	4.85E+00	5.76E+00	8.47E-01	1.01E+00
Fluoranthene	1.46E-03	1.09E-02	4.20E-04	3.15E-03	1.01E-04	7.54E-04
Indeno(1,2,3-cd)pyrene	4.41E-03	3.34E-02	2.15E-04	1.63E-03	1.22E-04	9.21E-04
Lead	4.03E-01	4.30E-01	6.04E-01	6.45E-01	1.12E-01	1.20E-01
Lithium	2.11E+01	2.41E+01	2.11E+01	2.41E+01	4.06E+00	4.63E+00
Manganese	2.28E+01	2.61E+01	2.99E+01	3.42E+01	5.60E+00	6.41E+00
Mercury	1.81E-01	2.05E-01	2.92E-03	3.30E-03	3.98E-03	4.50E-03
Phenanthrene	1.17E-03	9.59E-03	3.37E-04	2.77E-03	8.07E-05	6.62E-04
Pyrene	1.53E-03	5.10E-03	4.40E-04	1.47E-03	1.05E-04	3.52E-04
Zinc	1.38E+02	5.43E+02	2.96E-10	1.16E-09	2.65E+00	1.04E+01
LPAH	1.17E-03	9.59E-03	3.37E-04	2.77E-03	8.07E-05	6.62E-04
HPAH	1.30E-02	6.49E-02	3.74E-03	1.87E-02	8.95E-04	4.48E-03
TOTAL PAHs	1.41E-02	7.45E-02	4.08E-03	2.15E-02	9.76E-04	5.14E-03

**TABLE E-4  
INTAKE CALCULATIONS FOR BACKGROUND SOIL  
DEER MOUSE**

TOTAL INTAKE		
INTAKE = Soil Intake + Food Intake		
Chemical	TOTAL Average Intake	TOTAL RME Intake
Antimony	4.06E-02	9.33E-02
Barium	1.13E+01	1.71E+01
Benzo(a)anthracene	9.17E-05	3.61E-04
Benzo(a)pyrene	8.45E-05	2.98E-04
Benzo(b)fluoranthene	6.52E-05	2.25E-04
Benzo(g,h,i)perylene	2.09E-04	4.57E-04
Benzo(k)fluoranthene	1.12E-04	4.23E-04
Cadmium	2.65E-03	9.36E-03
Chromium	8.09E-02	9.03E-02
Chrysene	1.14E-04	3.74E-04
Copper	8.93E-01	1.06E+00
Fluoranthene	1.80E-04	1.35E-03
Indeno(1,2,3-cd)pyrene	3.33E-04	2.52E-03
Lead	1.64E-01	1.75E-01
Lithium	4.14E+00	4.72E+00
Manganese	7.05E+00	8.06E+00
Mercury	4.06E-03	4.59E-03
Phenanthrene	1.45E-04	1.19E-03
Pyrene	1.89E-04	6.31E-04
Zinc	3.60E+00	1.41E+01
LPAH	1.45E-04	1.19E-03
HPAH	1.61E-03	8.04E-03
TOTAL PAHs	1.75E-03	9.22E-03

**TABLE E-5  
INTAKE CALCULATIONS FOR BACKGROUND SOIL  
COYOTE**

SOIL INGESTION						
INTAKE = (Sc * IR * AF * AUF) / (BW)						
Parameter	Definition	Value	Reference			
Intake	Intake of chemical (mg/kg-day)	calculated				
Sc	Soil concentration (mg/kg)	see data page				
IR	Ingestion rate of soil (kg/day)	1.31E-02	EPA, 2009 (normalized for bw)			
AF	Chemical Bioavailability in soil (unitless)	1	EPA, 1997			
AUF	Area Use Factor	1	EPA, 1997			
BW	Body weight (kg)	1.55E+01	EPA, 1993			
Chemical	Average Sc	RME Sc	Average Intake	RME Intake		
Antimony	9.53E-01	2.19E+00	8.04E-04	1.85E-03		
Barium	3.33E+02	5.02E+02	2.81E-01	4.24E-01		
Benzo(a)anthracene	1.16E-02	4.57E-02	9.79E-06	3.86E-05		
Benzo(a)pyrene	1.22E-02	4.31E-02	1.03E-05	3.64E-05		
Benzo(b)fluoranthene	9.41E-03	3.25E-02	7.94E-06	2.74E-05		
Benzo(g,h,i)perylene	2.41E-02	5.27E-02	2.03E-05	4.45E-05		
Benzo(k)fluoranthene	1.58E-02	5.95E-02	1.33E-05	5.02E-05		
Cadmium	3.11E-02	1.10E-01	2.62E-05	9.28E-05		
Chromium	1.52E+01	1.70E+01	1.28E-02	1.43E-02		
Chrysene	1.45E-02	4.77E-02	1.22E-05	4.03E-05		
Copper	1.21E+01	1.44E+01	1.02E-02	1.22E-02		
Fluoranthene	2.08E-02	1.56E-01	1.76E-05	1.32E-04		
Indeno(1,2,3-cd)pyrene	5.51E-02	4.17E-01	4.65E-05	3.52E-04		
Lead	1.34E+01	1.43E+01	1.13E-02	1.21E-02		
Lithium	2.11E+01	2.41E+01	1.78E-02	2.04E-02		
Manganese	3.77E+02	4.32E+02	3.18E-01	3.64E-01		
Mercury	2.13E-02	2.41E-02	1.80E-05	2.03E-05		
Phenanthrene	1.67E-02	1.37E-01	1.41E-05	1.16E-04		
Pyrene	2.18E-02	7.28E-02	1.84E-05	6.14E-05		
Zinc	2.47E+02	9.69E+02	2.08E-01	8.18E-01		
LPAH	1.67E-02	1.37E-01	1.41E-05	1.16E-04		
HPAH	1.85E-01	9.27E-01	1.56E-04	7.82E-04		
TOTAL PAHs	2.02E-01	1.06E+00	1.70E-04	8.98E-04		
FOOD INGESTION						
INTAKE = ((Cm * IR * Dfm * AUF)/(BW) + (Cb * IR * Dfb * AUF) / (BW))						
Parameter	Definition	Value	Reference			
Intake	Intake of chemical (mg/kg-day)	calculated				
Cm	Mammal concentration (mg/kg)	see FoodConc page				
Cb	Bird concentration (mg/kg)	see FoodConc page				
IR	Ingestion rate of food (kg/day)	6.54E-01	EPA, 1993 (normalized for bw)			
Dfm	Dietary fraction of small mammals (unitless)	7.50E-01	EPA, 1993			
Dfb	Dietary fraction of birds (unitless)	2.50E-01	EPA, 1993			
AUF	Area Use Factor	1	EPA, 1997			
BW	Body weight (kg)	1.55E+01	EPA, 1993			
Chemical	Average Mammal	RME Mammal	Average Bird	RME Bird	Average Intake	RME Intake
Antimony	1.16E-04	2.66E-04	1.16E-04	2.66E-04	4.88E-06	1.12E-05
Barium	4.56E-03	6.88E-03	4.56E-03	6.88E-03	1.93E-04	2.90E-04
Benzo(a)anthracene	1.89E-06	7.43E-06	2.55E-06	1.00E-05	8.66E-08	3.41E-07
Benzo(a)pyrene	3.09E-06	1.09E-05	6.11E-06	2.16E-05	1.62E-07	5.74E-07
Benzo(b)fluoranthene	2.82E-06	9.75E-06	5.57E-06	1.92E-05	1.48E-07	5.11E-07
Benzo(g,h,i)perylene	2.89E-05	6.32E-05	3.92E-05	8.57E-05	1.33E-06	2.90E-06
Benzo(k)fluoranthene	4.72E-06	1.78E-05	9.30E-06	3.50E-05	2.47E-07	9.32E-07
Cadmium	8.19E-07	2.90E-06	5.80E-04	2.05E-03	6.15E-06	2.17E-05
Chromium	4.96E-04	5.54E-04	4.96E-04	5.54E-04	2.09E-05	2.34E-05
Chrysene	2.53E-06	8.33E-06	3.56E-06	1.17E-05	1.18E-07	3.87E-07
Copper	5.48E+00	6.52E+00	5.48E+00	6.52E+00	2.31E-01	2.75E-01
Fluoranthene	2.50E-05	1.87E-04	3.38E-05	2.54E-04	1.15E-06	8.60E-06
Indeno(1,2,3-cd)pyrene	4.31E-05	3.26E-04	1.43E-04	1.09E-03	2.88E-06	2.18E-05
Lead	1.15E-04	1.22E-04	1.15E-04	1.22E-04	4.83E-06	5.16E-06
Lithium	4.23E+01	4.83E+01	4.23E+01	4.83E+01	1.78E+00	2.04E+00
Manganese	4.07E+02	4.66E+02	4.07E+02	4.66E+02	1.72E+01	1.97E+01
Mercury	1.39E-06	1.57E-06	5.73E-06	6.48E-06	1.04E-07	1.18E-07
Phenanthrene	2.00E-05	1.64E-04	2.72E-05	2.23E-04	9.20E-07	7.55E-06
Pyrene	2.62E-05	8.73E-05	3.55E-05	1.18E-04	1.20E-06	4.01E-06
Zinc	3.19E-05	1.25E-04	3.09E-02	1.21E-01	3.27E-04	1.28E-03
LPAH	2.00E-05	1.64E-04	2.72E-05	2.23E-04	9.20E-07	7.55E-06
HPAH	2.22E-04	1.11E-03	3.01E-04	1.51E-03	1.02E-05	5.11E-05
TOTAL PAHs	2.42E-04	1.28E-03	3.29E-04	1.73E-03	1.11E-05	5.86E-05

**TABLE E-5  
INTAKE CALCULATIONS FOR BACKGROUND SOIL  
COYOTE**

TOTAL INTAKE		
INTAKE = Soil Intake + Food Intake		
Chemical	TOTAL Average Intake	TOTAL RME Intake
Antimony	8.09E-04	1.86E-03
Barium	2.81E-01	4.24E-01
Benzo(a)anthracene	9.88E-06	3.89E-05
Benzo(a)pyrene	1.05E-05	3.69E-05
Benzo(b)fluoranthene	8.09E-06	2.79E-05
Benzo(g,h,i)perylene	2.17E-05	4.74E-05
Benzo(k)fluoranthene	1.36E-05	5.11E-05
Cadmium	3.24E-05	1.15E-04
Chromium	1.28E-02	1.43E-02
Chrysene	1.24E-05	4.06E-05
Copper	2.42E-01	2.87E-01
Fluoranthene	1.87E-05	1.40E-04
Indeno(1,2,3-cd)pyrene	4.94E-05	3.74E-04
Lead	1.13E-02	1.21E-02
Lithium	1.80E+00	2.06E+00
Manganese	1.75E+01	2.00E+01
Mercury	1.81E-05	2.05E-05
Phenanthrene	1.50E-05	1.23E-04
Pyrene	1.96E-05	6.54E-05
Zinc	2.09E-01	8.19E-01
LPAH	1.50E-05	1.23E-04
HPAH	1.67E-04	8.33E-04
TOTAL PAHs	1.82E-04	9.57E-04

**TABLE E-6  
INTAKE CALCULATIONS FOR BACKGROUND SOIL  
LEAST SHREW**

SOIL INGESTION						
INTAKE = (Sc * IR * AF * AUF) / (BW)						
Parameter	Definition		Value	Reference		
Intake	Intake of chemical (mg/kg-day)		calculated			
Sc	Soil concentration (mg/kg)		see data page			
IR	Ingestion rate of soil (kg/day)		1.00E-04	EPA, 2009 (normalized for bw)		
AF	Chemical Bioavailability in soil (unitless)		1	EPA, 1997		
AUF	Area Use Factor		1	EPA, 1997		
BW	Body weight (kg)		4.00E-03	Davis and Schmidly, 2009		
Chemical	Average Sc	RME Sc	Average Intake	RME Intake		
Antimony	9.53E-01	2.19E+00	2.38E-02	5.48E-02		
Barium	3.33E+02	5.02E+02	8.33E+00	1.26E+01		
Benzo(a)anthracene	1.16E-02	4.57E-02	2.90E-04	1.14E-03		
Benzo(a)pyrene	1.22E-02	4.31E-02	3.05E-04	1.08E-03		
Benzo(b)fluoranthene	9.41E-03	3.25E-02	2.35E-04	8.13E-04		
Benzo(g,h,i)perylene	2.41E-02	5.27E-02	6.03E-04	1.32E-03		
Benzo(k)fluoranthene	1.58E-02	5.95E-02	3.95E-04	1.49E-03		
Cadmium	3.11E-02	1.10E-01	7.78E-04	2.75E-03		
Chromium	1.52E+01	1.70E+01	3.80E-01	4.24E-01		
Chrysene	1.45E-02	4.77E-02	3.63E-04	1.19E-03		
Copper	1.21E+01	1.44E+01	3.03E-01	3.60E-01		
Fluoranthene	2.08E-02	1.56E-01	5.20E-04	3.90E-03		
Indeno(1,2,3-cd)pyrene	5.51E-02	4.17E-01	1.38E-03	1.04E-02		
Lead	1.34E+01	1.43E+01	3.36E-01	3.58E-01		
Lithium	2.11E+01	2.41E+01	5.29E-01	6.03E-01		
Manganese	3.77E+02	4.32E+02	9.44E+00	1.08E+01		
Mercury	2.13E-02	2.41E-02	5.33E-04	6.03E-04		
Phenanthrene	1.67E-02	1.37E-01	4.18E-04	3.43E-03		
Pyrene	2.18E-02	7.28E-02	5.45E-04	1.82E-03		
Zinc	2.47E+02	9.69E+02	6.18E+00	2.42E+01		
LPAH	1.67E-02	1.37E-01	4.18E-04	3.43E-03		
HPAH	1.85E-01	9.27E-01	4.63E-03	2.32E-02		
TOTAL PAHs	2.02E-01	1.06E+00	5.05E-03	2.66E-02		
FOOD INGESTION						
INTAKE = ((Ca * IR * DFa * AUF) / (BW)) + ((Cp * IR * DFs * AUF)/(BW))						
Parameter	Definition		Value	Reference		
Intake	Intake of chemical (mg/kg-day)		calculated			
Ca	Arthropod concentration (mg/kg)		see FoodConc page			
Cp	Plant concentration (mg/kg)		see FoodConc page			
IR	Ingestion rate of food (kg/day)		1.36E-03	EPA, 1993 (normalized for bw)		
Dfa	Dietary fraction of arthropods (unitless)		9.00E-01	EPA, 2009		
Dfs	Dietary fraction of plants, seeds and other vegetation (unitless)		1.00E-01	EPA, 2009		
AUF	Area Use Factor		1	EPA, 1997		
BW	Body weight (kg)		4.00E-03	Davis and Schmidly, 2009		
Chemical	Average Arthropod	RME Arthropod	Average Plant	RME Plant	Average Intake	RME Intake
Antimony	2.10E-01	4.82E-01	1.91E-01	4.38E-01	7.06E-02	1.62E-01
Barium	7.33E+01	1.11E+02	5.00E+01	7.53E+01	2.41E+01	3.64E+01
Benzo(a)anthracene	3.48E-04	1.37E-03	2.34E-04	9.23E-04	1.14E-04	4.51E-04
Benzo(a)pyrene	8.54E-04	3.02E-03	1.23E-04	4.35E-04	2.66E-04	9.38E-04
Benzo(b)fluoranthene	6.59E-04	2.28E-03	9.50E-05	3.28E-04	2.05E-04	7.07E-04
Benzo(g,h,i)perylene	1.69E-03	3.69E-03	4.87E-04	1.06E-03	5.33E-04	1.17E-03
Benzo(k)fluoranthene	1.26E-03	4.76E-03	1.60E-04	6.01E-04	3.92E-04	1.48E-03
Cadmium	2.99E-02	1.06E-01	1.13E-02	4.00E-02	9.52E-03	3.37E-02
Chromium	1.52E-01	1.70E-01	1.14E-01	1.27E-01	5.04E-02	5.62E-02
Chrysene	5.80E-04	1.91E-03	2.71E-04	8.92E-04	1.87E-04	6.14E-04
Copper	4.85E-01	5.76E-01	4.85E+00	5.76E+00	3.13E-01	3.72E-01
Fluoranthene	1.46E-03	1.09E-02	4.20E-04	3.15E-03	4.60E-04	3.45E-03
Indeno(1,2,3-cd)pyrene	4.41E-03	3.34E-02	2.15E-04	1.63E-03	1.36E-03	1.03E-02
Lead	4.03E-01	4.30E-01	6.04E-01	6.45E-01	1.44E-01	1.53E-01
Lithium	2.11E+01	2.41E+01	2.11E+01	2.41E+01	7.19E+00	8.20E+00
Manganese	2.28E+01	2.61E+01	2.99E+01	3.42E+01	8.00E+00	9.16E+00
Mercury	1.81E-01	2.05E-01	2.92E-03	3.30E-03	5.55E-02	6.28E-02
Phenanthrene	1.17E-03	9.59E-03	3.37E-04	2.77E-03	3.69E-04	3.03E-03
Pyrene	1.53E-03	5.10E-03	4.40E-04	1.47E-03	4.82E-04	1.61E-03
Zinc	1.38E+02	5.43E+02	2.96E+10	1.16E-09	4.23E+01	1.66E+02
LPAH	1.17E-03	9.59E-03	3.37E-04	2.77E-03	3.69E-04	3.03E-03
HPAH	1.30E-02	6.49E-02	3.74E-03	1.87E-02	4.10E-03	2.05E-02
TOTAL PAHs	1.41E-02	7.45E-02	4.08E-03	2.15E-02	4.47E-03	2.35E-02

**TABLE E-6  
INTAKE CALCULATIONS FOR BACKGROUND SOIL  
LEAST SHREW**

TOTAL INTAKE		
INTAKE = Soil Intake + Food Intake		
Chemical	TOTAL Average Intake	TOTAL RME Intake
Antimony	9.45E-02	2.17E-01
Barium	3.25E+01	4.89E+01
Benzo(a)anthracene	4.04E-04	1.59E-03
Benzo(a)pyrene	5.71E-04	2.02E-03
Benzo(b)fluoranthene	4.40E-04	1.52E-03
Benzo(g,h,i)perylene	1.14E-03	2.48E-03
Benzo(k)fluoranthene	7.87E-04	2.96E-03
Cadmium	1.03E-02	3.64E-02
Chromium	4.30E-01	4.80E-01
Chrysene	5.49E-04	1.81E-03
Copper	6.16E-01	7.33E-01
Fluoranthene	9.80E-04	7.35E-03
Indeno(1,2,3-cd)pyrene	2.73E-03	2.07E-02
Lead	4.80E-01	5.12E-01
Lithium	7.72E+00	8.81E+00
Manganese	1.74E+01	2.00E+01
Mercury	5.60E-02	6.34E-02
Phenanthrene	7.87E-04	6.45E-03
Pyrene	1.03E-03	3.43E-03
Zinc	4.85E+01	1.90E+02
LPAH	7.87E-04	6.45E-03
HPAH	8.73E-03	4.37E-02
TOTAL PAHs	9.52E-03	5.01E-02

**TABLE E-7  
INTAKE CALCULATIONS FOR BACKGROUND SOIL  
AMERICAN ROBIN**

SOIL INGESTION								
INTAKE = (Sc * IR * AF * AUF) / (BW)								
Parameter	Definition	Value		Reference				
Intake	Intake of chemical (mg/kg-day)	calculated						
Sc	Soil concentration (mg/kg)	see data page						
IR	Ingestion rate of soil (kg/day)	8.58E-04		EPA, 2009 (normalized for bw)				
AF	Chemical Bioavailability in soil (unitless)	1		EPA, 1997				
AUF	Area Use Factor	1		EPA, 1997				
BW	Body weight (kg)	8.00E-02		EPA, 1999				
Chemical	Average Sc	RME Sc	Average Intake	RME Intake				
Antimony	9.53E-01	2.19E+00	1.02E-02	2.35E-02				
Barium	3.33E+02	5.02E+02	3.57E+00	5.39E+00				
Benzo(a)anthracene	1.16E-02	4.57E-02	1.24E-04	4.90E-04				
Benzo(a)pyrene	1.22E-02	4.31E-02	1.31E-04	4.62E-04				
Benzo(b)fluoranthene	9.41E-03	3.25E-02	1.01E-04	3.49E-04				
Benzo(g,h,i)perylene	2.41E-02	5.27E-02	2.58E-04	5.65E-04				
Benzo(k)fluoranthene	1.58E-02	5.95E-02	1.69E-04	6.38E-04				
Cadmium	3.11E-02	1.10E-01	3.34E-04	1.18E-03				
Chromium	1.52E+01	1.70E+01	1.63E-01	1.82E-01				
Chrysene	1.45E-02	4.77E-02	1.56E-04	5.12E-04				
Copper	1.21E+01	1.44E+01	1.30E-01	1.55E-01				
Fluoranthene	2.08E-02	1.56E-01	2.23E-04	1.67E-03				
Indeno(1,2,3-cd)pyrene	5.51E-02	4.17E-01	5.91E-04	4.47E-03				
Lead	1.34E+01	1.43E+01	1.44E-01	1.54E-01				
Lithium	2.11E+01	2.41E+01	2.27E-01	2.59E-01				
Manganese	3.77E+02	4.32E+02	4.05E+00	4.63E+00				
Mercury	2.13E-02	2.41E-02	2.28E-04	2.58E-04				
Phenanthrene	1.67E-02	1.37E-01	1.79E-04	1.47E-03				
Pyrene	2.18E-02	7.28E-02	2.34E-04	7.81E-04				
Zinc	2.47E+02	9.69E+02	2.65E+00	1.04E+01				
LPAH	1.67E-02	1.37E-01	1.79E-04	1.47E-03				
HPAH	1.85E-01	9.27E-01	1.99E-03	9.94E-03				
TOTAL PAHs	2.02E-01	1.06E+00	2.17E-03	1.14E-02				
FOOD INGESTION								
INTAKE = ((Ce * IR * Dfe * AUF)/(BW) + (Ca * IR * DFa * AUF) / (BW) + ((Cp * IR * Dfs * AUF)/(BW))								
Parameter	Definition	Value		Reference				
Intake	Intake of chemical (mg/kg-day)	calculated						
Ce	Earthworm concentration (mg/kg)	see FoodConc page						
Ca	Arthropod concentration (mg/kg)	see FoodConc page						
Cp	Plant concentration (mg/kg)	see FoodConc page						
IR	Ingestion rate of food (kg/day)	1.65E-02		EPA, 1999 (normalized for bw)				
Dfe	Dietary fraction of earthworms (unitless)	4.60E-01		EPA, 1993				
Dfa	Dietary fraction of arthropods (unitless)	4.60E-01		EPA, 1993				
Dfs	Dietary fraction of plants, seeds and other vegetation (unitless)	8.00E-02		EPA, 1993				
AUF	Area Use Factor	1		EPA, 1997				
BW	Body weight (kg)	8.00E-02		EPA, 1999				
Chemical	Average Earthworm	RME Earthworm	Average Arthropod	RME Arthropod	Average Plant	RME Plant	Average Intake	RME Intake
Antimony	2.10E-01	4.82E-01	2.10E-01	4.82E-01	1.91E-01	4.38E-01	4.29E-02	9.86E-02
Barium	7.33E+01	1.11E+02	7.33E+01	1.11E+02	5.00E+01	7.53E+01	1.47E+01	2.22E+01
Benzo(a)anthracene	3.48E-04	1.37E-03	3.48E-04	1.37E-03	2.34E-04	9.23E-04	6.99E-05	2.75E-04
Benzo(a)pyrene	8.54E-04	3.02E-03	8.54E-04	3.02E-03	1.23E-04	4.35E-04	1.64E-04	5.80E-04
Benzo(b)fluoranthene	6.59E-04	2.28E-03	6.59E-04	2.28E-03	9.50E-05	3.28E-04	1.27E-04	4.37E-04
Benzo(g,h,i)perylene	1.69E-03	3.69E-03	1.69E-03	3.69E-03	4.87E-04	1.06E-03	3.28E-04	7.18E-04
Benzo(k)fluoranthene	1.26E-03	4.76E-03	1.26E-03	4.76E-03	1.60E-04	6.01E-04	2.42E-04	9.13E-04
Cadmium	2.99E-02	1.06E-01	2.99E-02	1.06E-01	1.13E-02	4.00E-02	5.85E-03	2.07E-02
Chromium	1.52E-01	1.70E-01	1.52E-01	1.70E-01	1.14E-01	1.27E-01	3.07E-02	3.43E-02
Chrysene	5.80E-04	1.91E-03	5.80E-04	1.91E-03	2.71E-04	8.92E-04	1.15E-04	3.77E-04
Copper	4.85E-01	5.76E-01	4.85E-01	5.76E-01	4.85E+00	5.76E+00	1.72E-01	2.04E-01
Fluoranthene	1.46E-03	1.09E-02	1.46E-03	1.09E-02	4.20E-04	3.15E-03	2.83E-04	2.12E-03
Indeno(1,2,3-cd)pyrene	4.41E-03	3.34E-02	4.41E-03	3.34E-02	2.15E-04	1.63E-03	8.40E-04	6.36E-03
Lead	4.03E-01	4.30E-01	4.03E-01	4.30E-01	6.04E-01	6.45E-01	8.64E-02	9.22E-02
Lithium	2.11E+01	2.41E+01	2.11E+01	2.41E+01	2.11E+01	2.41E+01	4.36E+00	4.98E+00
Manganese	2.28E+01	2.61E+01	2.28E+01	2.61E+01	2.99E+01	3.42E+01	4.83E+00	5.52E+00
Mercury	1.81E-01	2.05E-01	1.81E-01	2.05E-01	2.92E-03	3.30E-03	3.44E-02	3.89E-02
Phenanthrene	1.17E-03	9.59E-03	1.17E-03	9.59E-03	3.37E-04	2.77E-03	2.27E-04	1.87E-03
Pyrene	1.53E-03	5.10E-03	1.53E-03	5.10E-03	4.40E-04	1.47E-03	2.97E-04	9.91E-04
Zinc	1.38E+02	5.43E+02	1.38E+02	5.43E+02	2.96E-10	1.16E-09	2.62E+01	1.03E+02
LPAH	1.17E-03	9.59E-03	1.17E-03	9.59E-03	3.37E-04	2.77E-03	2.27E-04	1.87E-03
HPAH	1.30E-02	6.49E-02	1.30E-02	6.49E-02	3.74E-03	1.87E-02	2.52E-03	1.26E-02
TOTAL PAHs	1.41E-02	7.45E-02	1.41E-02	7.45E-02	4.08E-03	2.15E-02	2.75E-03	1.45E-02

**TABLE E-7**  
**INTAKE CALCULATIONS FOR BACKGROUND SOIL**  
**AMERICAN ROBIN**

TOTAL INTAKE		
INTAKE = Soil Intake + Food Intake		
Chemical	TOTAL Average Intake	TOTAL RME Intake
Antimony	5.31E-02	1.22E-01
Barium	1.83E+01	2.76E+01
Benzo(a)anthracene	1.94E-04	7.66E-04
Benzo(a)pyrene	2.95E-04	1.04E-03
Benzo(b)fluoranthene	2.27E-04	7.86E-04
Benzo(g,h,i)perylene	5.87E-04	1.28E-03
Benzo(k)fluoranthene	4.12E-04	1.55E-03
Cadmium	6.19E-03	2.19E-02
Chromium	1.94E-01	2.16E-01
Chrysene	2.70E-04	8.88E-04
Copper	3.02E-01	3.59E-01
Fluoranthene	5.06E-04	3.80E-03
Indeno(1,2,3-cd)pyrene	1.43E-03	1.08E-02
Lead	2.30E-01	2.46E-01
Lithium	4.59E+00	5.24E+00
Manganese	8.87E+00	1.02E+01
Mercury	3.46E-02	3.92E-02
Phenanthrene	4.06E-04	3.33E-03
Pyrene	5.31E-04	1.77E-03
Zinc	2.89E+01	1.13E+02
LPAH	4.06E-04	3.33E-03
HPAH	4.51E-03	2.26E-02
TOTAL PAHs	4.92E-03	2.59E-02

**TABLE E-8  
INTAKE CALCULATIONS FOR BACKGROUND SOIL  
RED-TAILED HAWK**

SOIL INGESTION						
INTAKE = (Sc * IR * AF * AUF) / (BW)						
Parameter	Definition		Value	Reference		
Intake	Intake of chemical (mg/kg-day)		calculated			
Sc	Soil concentration (mg/kg)		see data page			
IR	Ingestion rate of soil (kg/day)		1.13E-03	EPA, 2009 (normalized for bw)		
AF	Chemical Bioavailability in soil (unitless)		1	EPA, 1997		
AUF	Area Use Factor		1	EPA, 1997		
BW	Body weight (kg)		9.60E-01	EPA, 1999		
Chemical	Average Sc	RME Sc	Average Intake	RME Intake		
Antimony	9.53E-01	2.19E+00	1.12E-03	2.58E-03		
Barium	3.33E+02	5.02E+02	3.92E-01	5.91E-01		
Benzo(a)anthracene	1.16E-02	4.57E-02	1.37E-05	5.38E-05		
Benzo(a)pyrene	1.22E-02	4.31E-02	1.44E-05	5.07E-05		
Benzo(b)fluoranthene	9.41E-03	3.25E-02	1.11E-05	3.83E-05		
Benzo(g,h,i)perylene	2.41E-02	5.27E-02	2.84E-05	6.20E-05		
Benzo(k)fluoranthene	1.58E-02	5.95E-02	1.86E-05	7.00E-05		
Cadmium	3.11E-02	1.10E-01	3.66E-05	1.29E-04		
Chromium	1.52E+01	1.70E+01	1.79E-02	2.00E-02		
Chrysene	1.45E-02	4.77E-02	1.71E-05	5.61E-05		
Copper	1.21E+01	1.44E+01	1.43E-02	1.70E-02		
Fluoranthene	2.08E-02	1.56E-01	2.45E-05	1.84E-04		
Indeno(1,2,3-cd)pyrene	5.51E-02	4.17E-01	6.49E-05	4.91E-04		
Lead	1.34E+01	1.43E+01	1.58E-02	1.69E-02		
Lithium	2.11E+01	2.41E+01	2.49E-02	2.84E-02		
Manganese	3.77E+02	4.32E+02	4.44E-01	5.08E-01		
Mercury	2.13E-02	2.41E-02	2.51E-05	2.84E-05		
Phenanthrene	1.67E-02	1.37E-01	1.97E-05	1.61E-04		
Pyrene	2.18E-02	7.28E-02	2.57E-05	8.57E-05		
Zinc	2.47E+02	9.69E+02	2.91E-01	1.14E+00		
LPAH	1.67E-02	1.37E-01	1.97E-05	1.61E-04		
HPAH	1.85E-01	9.27E-01	2.18E-04	1.09E-03		
TOTAL PAHs	2.02E-01	1.06E+00	2.38E-04	1.25E-03		
FOOD INGESTION						
INTAKE = ((Cm * IR * Dfm * AUF)/(BW) + (Cb * IR * Dfb * AUF) / (BW))						
Parameter	Definition		Value	Reference		
Intake	Intake of chemical (mg/kg-day)		calculated			
Cm	Mammal concentration (mg/kg)		see FoodConc page			
Cb	Bird concentration (mg/kg)		see FoodConc page			
IR	Ingestion rate of food (kg/day)		5.67E-02	EPA, 1993 (normalized for bw)		
Dfm	Dietary fraction of small mammals (unitless)		7.85E-01	EPA, 1993		
Dfb	Dietary fraction of birds (unitless)		2.15E-01	EPA, 1993		
AUF	Area Use Factor		1	EPA, 1997		
BW	Body weight (kg)		9.60E-01	EPA, 1999		
Chemical	Average Mammal	RME Mammal	Average Bird	RME Bird	Average Intake	RME Intake
Antimony	1.16E-04	2.66E-04	1.16E-04	2.66E-04	6.82E-06	1.57E-05
Barium	4.56E-03	6.88E-03	4.56E-03	6.88E-03	2.70E-04	4.06E-04
Benzo(a)anthracene	1.89E-06	7.43E-06	2.55E-06	1.00E-05	1.20E-07	4.72E-07
Benzo(a)pyrene	3.09E-06	1.09E-05	6.11E-06	2.16E-05	2.21E-07	7.81E-07
Benzo(b)fluoranthene	2.82E-06	9.75E-06	5.57E-06	1.92E-05	2.02E-07	6.96E-07
Benzo(g,h,i)perylene	2.89E-05	6.32E-05	3.92E-05	8.57E-05	1.84E-06	4.02E-06
Benzo(k)fluoranthene	4.72E-06	1.78E-05	9.30E-06	3.50E-05	3.37E-07	1.27E-06
Cadmium	8.19E-07	2.90E-06	5.80E-04	2.05E-03	7.41E-06	2.62E-05
Chromium	4.96E-04	5.54E-04	4.96E-04	5.54E-04	2.93E-05	3.27E-05
Chrysene	2.53E-06	8.33E-06	3.56E-06	1.17E-05	1.63E-07	5.35E-07
Copper	5.48E+00	6.52E+00	5.48E+00	6.52E+00	3.24E-01	3.85E-01
Fluoranthene	2.50E-05	1.87E-04	3.38E-05	2.54E-04	1.59E-06	1.19E-05
Indeno(1,2,3-cd)pyrene	4.31E-05	3.26E-04	1.43E-04	1.09E-03	3.82E-06	2.89E-05
Lead	1.15E-04	1.22E-04	1.15E-04	1.22E-04	6.77E-06	7.22E-06
Lithium	4.23E+01	4.83E+01	4.23E+01	4.83E+01	2.50E+00	2.85E+00
Manganese	4.07E+02	4.66E+02	4.07E+02	4.66E+02	2.41E+01	2.75E+01
Mercury	1.39E-06	1.57E-06	5.73E-06	6.48E-06	1.37E-07	1.55E-07
Phenanthrene	2.00E-05	1.64E-04	2.72E-05	2.23E-04	1.27E-06	1.04E-05
Pyrene	2.62E-05	8.73E-05	3.55E-05	1.18E-04	1.66E-06	5.55E-06
Zinc	3.19E-05	1.25E-04	3.09E-02	1.21E-01	3.94E-04	1.54E-03
LPAH	2.00E-05	1.64E-04	2.72E-05	2.23E-04	1.27E-06	1.04E-05
HPAH	2.22E-04	1.11E-03	3.01E-04	1.51E-03	1.41E-05	7.07E-05
TOTAL PAHs	2.42E-04	1.28E-03	3.29E-04	1.73E-03	1.54E-05	8.12E-05

**TABLE E-8  
INTAKE CALCULATIONS FOR BACKGROUND SOIL  
RED-TAILED HAWK**

TOTAL INTAKE		
INTAKE = Soil Intake + Food Intake		
Chemical	TOTAL Average Intake	TOTAL RME Intake
Antimony	1.13E-03	2.59E-03
Barium	3.92E-01	5.92E-01
Benzo(a)anthracene	1.38E-05	5.43E-05
Benzo(a)pyrene	1.46E-05	5.15E-05
Benzo(b)fluoranthene	1.13E-05	3.90E-05
Benzo(g,h,i)perylene	3.02E-05	6.61E-05
Benzo(k)fluoranthene	1.89E-05	7.13E-05
Cadmium	4.40E-05	1.56E-04
Chromium	1.79E-02	2.00E-02
Chrysene	1.72E-05	5.67E-05
Copper	3.38E-01	4.02E-01
Fluoranthene	2.61E-05	1.96E-04
Indeno(1,2,3-cd)pyrene	6.87E-05	5.20E-04
Lead	1.58E-02	1.69E-02
Lithium	2.52E+00	2.88E+00
Manganese	2.45E+01	2.80E+01
Mercury	2.52E-05	2.85E-05
Phenanthrene	2.09E-05	1.72E-04
Pyrene	2.73E-05	9.12E-05
Zinc	2.91E-01	1.14E+00
LPAH	2.09E-05	1.72E-04
HPAH	2.32E-04	1.16E-03
TOTAL PAHs	2.53E-04	1.33E-03

**TABLE E-9  
ECOLOGICAL HAZARD QUOTIENT CALCULATIONS FOR BACKGROUND SOIL  
DEER MOUSE**

Ecological Hazard Quotient = Intake/TRV					
Parameter	Definition	Default			
Intake	Intake of COPEC (mg/kg-day)	see Intake			
TRV	Toxicity Reference Value (mg/kg)	see TRV summary page			
Chemical	Average Intake	RME Intake	TRV (deer mouse)	Average EHQ	RME EHQ
Antimony	4.06E-02	9.33E-02	1.25E-01	3.25E-01	7.46E-01
Barium	1.13E+01	1.71E+01	5.18E+01	2.18E-01	3.29E-01
Benzo(a)anthracene	9.17E-05	3.61E-04			
Benzo(a)pyrene	8.45E-05	2.98E-04			
Benzo(b)fluoranthene	6.52E-05	2.25E-04			
Benzo(g,h,i)perylene	2.09E-04	4.57E-04			
Benzo(k)fluoranthene	1.12E-04	4.23E-04			
Cadmium	2.65E-03	9.36E-03	7.70E-01	3.44E-03	1.22E-02
Chromium	8.09E-02	9.03E-02	2.40E+00	3.37E-02	3.76E-02
Chrysene	1.14E-04	3.74E-04			
Copper	8.93E-01	1.06E+00	5.60E+00	1.59E-01	1.90E-01
Fluoranthene	1.80E-04	1.35E-03			
Indeno(1,2,3-cd)pyrene	3.33E-04	2.52E-03			
Lead	1.64E-01	1.75E-01	4.70E+00	3.48E-02	3.72E-02
Lithium	4.14E+00	4.72E+00	1.10E+01	3.76E-01	4.29E-01
Manganese	7.05E+00	8.06E+00	1.06E+02	6.65E-02	7.61E-02
Mercury	4.06E-03	4.59E-03	1.01E+00	4.02E-03	4.55E-03
Phenanthrene	1.45E-04	1.19E-03			
Pyrene	1.89E-04	6.31E-04			
Zinc	3.60E+00	1.41E+01	7.54E+01	4.78E-02	1.87E-01
LPAH	1.45E-04	1.19E-03	6.56E+01	2.21E-06	1.81E-05
HPAH	1.61E-03	8.04E-03	6.15E-01	2.61E-03	1.31E-02
TOTAL PAHs	1.75E-03	9.22E-03			

**TABLE E-10**  
**ECOLOGICAL HAZARD QUOTIENT CALCULATIONS FOR BACKGROUND SOIL**  
**COYOTE**

Ecological Hazard Quotient = Intake/TRV					
Parameter	Definition	Default			
Intake	Intake of COPEC (mg/kg-day)	see Intake			
TRV	Toxicity Reference Value (mg/kg)	see TRV summary page			
Chemical	Average Intake	RME Intake	TRV Coyote	Average EHQ	RME EHQ
Antimony	8.09E-04	1.86E-03	1.25E-01	6.47E-03	1.49E-02
Barium	2.81E-01	4.24E-01	5.18E+01	5.43E-03	8.19E-03
Benzo(a)anthracene	9.88E-06	3.89E-05			
Benzo(a)pyrene	1.05E-05	3.69E-05			
Benzo(b)fluoranthene	8.09E-06	2.79E-05			
Benzo(g,h,i)perylene	2.17E-05	4.74E-05			
Benzo(k)fluoranthene	1.36E-05	5.11E-05			
Cadmium	3.24E-05	1.15E-04	7.70E-01	4.21E-05	1.49E-04
Chromium	1.28E-02	1.43E-02	2.40E+00	5.35E-03	5.97E-03
Chrysene	1.24E-05	4.06E-05			
Copper	2.42E-01	2.87E-01	5.60E+00	4.31E-02	5.13E-02
Fluoranthene	1.87E-05	1.40E-04			
Indeno(1,2,3-cd)pyrene	4.94E-05	3.74E-04			
Lead	1.13E-02	1.21E-02	4.70E+00	2.41E-03	2.57E-03
Lithium	1.80E+00	2.06E+00	7.50E+00	2.40E-01	2.74E-01
Manganese	1.75E+01	2.00E+01	7.00E+01	2.50E-01	2.86E-01
Mercury	1.81E-05	2.05E-05	1.01E+00	1.79E-05	2.03E-05
Phenanthrene	1.50E-05	1.23E-04			
Pyrene	1.96E-05	6.54E-05			
Zinc	2.09E-01	8.19E-01	7.54E+01	2.77E-03	1.09E-02
LPAH	1.50E-05	1.23E-04	6.56E+01	2.29E-07	1.88E-06
HPAH	1.67E-04	8.33E-04	6.15E-01	2.71E-04	1.36E-03
TOTAL PAHs	1.82E-04	9.57E-04			

**TABLE E-11  
ECOLOGICAL HAZARD QUOTIENT CALCULATIONS FOR BACKGROUND SOIL SOUTH OF MARLIN  
LEAST SHREW**

Ecological Hazard Quotient = Intake/TRV					
Parameter	Definition	Default			
Intake	Intake of COPEC (mg/kg-day)	see Intake			
TRV	Toxicity Reference Value (mg/kg)	see TRV summary page			
Chemical	Average Intake	RME Intake	TRV Least Shrew	Average EHQ	RME EHQ
Antimony	9.45E-02	2.17E-01	1.25E-01	7.56E-01	1.74E+00
Barium	3.25E+01	4.89E+01	5.18E+01	6.26E-01	9.45E-01
Benzo(a)anthracene	4.04E-04	1.59E-03			
Benzo(a)pyrene	5.71E-04	2.02E-03			
Benzo(b)fluoranthene	4.40E-04	1.52E-03			
Benzo(g,h,i)perylene	1.14E-03	2.48E-03			
Benzo(k)fluoranthene	7.87E-04	2.96E-03			
Cadmium	1.03E-02	3.64E-02	7.70E-01	1.34E-02	4.73E-02
Chromium	4.30E-01	4.80E-01	2.40E+00	1.79E-01	2.00E-01
Chrysene	5.49E-04	1.81E-03			
Copper	6.16E-01	7.33E-01	5.60E+00	1.10E-01	1.31E-01
Fluoranthene	9.80E-04	7.35E-03			
Indeno(1,2,3-cd)pyrene	2.73E-03	2.07E-02			
Lead	4.80E-01	5.12E-01	4.70E+00	1.02E-01	1.09E-01
Lithium	7.72E+00	8.81E+00	1.20E+01	6.43E-01	7.34E-01
Manganese	1.74E+01	2.00E+01	1.15E+02	1.52E-01	1.73E-01
Mercury	5.60E-02	6.34E-02	1.01E+00	5.55E-02	6.28E-02
Phenanthrene	7.87E-04	6.45E-03			
Pyrene	1.03E-03	3.43E-03			
Zinc	4.85E+01	1.90E+02	7.54E+01	6.43E-01	2.52E+00
LPAH	7.87E-04	6.45E-03	6.56E+01	1.20E-05	9.84E-05
HPAH	8.73E-03	4.37E-02	6.15E-01	1.42E-02	7.10E-02
TOTAL PAHs	9.52E-03	5.01E-02			

**TABLE E-12**  
**ECOLOGICAL HAZARD QUOTIENT CALCULATIONS FOR BACKGROUND SOIL**  
**AMERICAN ROBIN**

Ecological Hazard Quotient = Intake/TRV					
Parameter	Definition	Default			
Intake	Intake of COPEC (mg/kg-day)	see Intake			
TRV	Toxicity Reference Value (mg/kg)	see TRV summary page			
Chemical	Average Intake	RME Intake	TRV American Robin	Average EHQ	RME EHQ
Antimony	5.31E-02	1.22E-01			
Barium	1.83E+01	2.76E+01	1.91E+01	9.58E-01	1.44E+00
Benzo(a)anthracene	1.94E-04	7.66E-04			
Benzo(a)pyrene	2.95E-04	1.04E-03			
Benzo(b)fluoranthene	2.27E-04	7.86E-04			
Benzo(g,h,i)perylene	5.87E-04	1.28E-03			
Benzo(k)fluoranthene	4.12E-04	1.55E-03			
Cadmium	6.19E-03	2.19E-02	1.47E+00	4.21E-03	1.49E-02
Chromium	1.94E-01	2.16E-01	2.66E+00	7.28E-02	8.12E-02
Chrysene	2.70E-04	8.88E-04			
Copper	3.02E-01	3.59E-01	4.05E+00	7.46E-02	8.86E-02
Fluoranthene	5.06E-04	3.80E-03			
Indeno(1,2,3-cd)pyrene	1.43E-03	1.08E-02			
Lead	2.30E-01	2.46E-01	1.63E+00	1.41E-01	1.51E-01
Lithium	4.59E+00	5.24E+00			
Manganese	8.87E+00	1.02E+01	9.98E+02	8.89E-03	1.02E-02
Mercury	3.46E-02	3.92E-02	3.25E+00	1.07E-02	1.21E-02
Phenanthrene	4.06E-04	3.33E-03			
Pyrene	5.31E-04	1.77E-03			
Zinc	2.89E+01	1.13E+02	6.61E+01	4.37E-01	1.71E+00
LPAH	4.06E-04	3.33E-03	6.56E+01	6.20E-06	5.08E-05
HPAH	4.51E-03	2.26E-02	6.15E-01	7.33E-03	3.67E-02
TOTAL PAHs	4.92E-03	2.59E-02			

**TABLE E-13  
ECOLOGICAL HAZARD QUOTIENT CALCULATIONS FOR BACKGROUND SOIL  
RED-TAILED HAWK**

Ecological Hazard Quotient = Intake/TRV					
Parameter	Definition	Default			
Intake	Intake of COPEC (mg/kg-day)	see Intake			
TRV	Toxicity Reference Value (mg/kg)	see TRV summary page			
Chemical	Average Intake	RME Intake	TRV Red-Tailed Hawk	Average EHQ	RME EHQ
Antimony	1.13E-03	2.59E-03			
Barium	3.92E-01	5.92E-01	3.15E+01	1.25E-02	1.88E-02
Benzo(a)anthracene	1.38E-05	5.43E-05			
Benzo(a)pyrene	1.46E-05	5.15E-05			
Benzo(b)fluoranthene	1.13E-05	3.90E-05			
Benzo(g,h,i)perylene	3.02E-05	6.61E-05			
Benzo(k)fluoranthene	1.89E-05	7.13E-05			
Cadmium	4.40E-05	1.56E-04	1.47E+00	2.99E-05	1.06E-04
Chromium	1.79E-02	2.00E-02	2.66E+00	6.74E-03	7.51E-03
Chrysene	1.72E-05	5.67E-05			
Copper	3.38E-01	4.02E-01	4.05E+00	8.35E-02	9.93E-02
Fluoranthene	2.61E-05	1.96E-04			
Indeno(1,2,3-cd)pyrene	6.87E-05	5.20E-04			
Lead	1.58E-02	1.69E-02	1.63E+00	9.70E-03	1.04E-02
Lithium	2.52E+00	2.88E+00			
Manganese	2.45E+01	2.80E+01	1.64E+03	1.49E-02	1.71E-02
Mercury	2.52E-05	2.85E-05	3.25E+00	7.76E-06	8.78E-06
Phenanthrene	2.09E-05	1.72E-04			
Pyrene	2.73E-05	9.12E-05			
Zinc	2.91E-01	1.14E+00	6.61E+01	4.40E-03	1.73E-02
LPAH	2.09E-05	1.72E-04	6.56E+01	3.19E-07	2.62E-06
HPAH	2.32E-04	1.16E-03	6.15E-01	3.78E-04	1.89E-03
TOTAL PAHs	2.53E-04	1.33E-03			

TABLE E-14  
AVERAGE CONCENTRATION OF CHEMICAL IN FOOD ITEM (mg/kg)

C<sub>food</sub> = C<sub>soil</sub> x BCF (or BAF)

where:

C<sub>food</sub> = Chemical Concentration in food (mg/kg dry)  
C<sub>soil</sub> = Chemical Concentration in soil (mg/kg dry)  
BCF = Bioconcentration Factor (unitless)  
BAF = Bioaccumulation Factor (unitless)

Compound	Average C <sub>soil</sub> (mg/kg)	Soil to Earthworm BCF	Earthworm Concentration	Reference	Soil to Arthropod BCF	Arthropod Concentration	Reference	Soil to Plant BAF	Plant/Fruit/Seed Concentration	Reference	Plant to Wildlife BCF	Plant to Deer Mouse Concentration	Reference	Soil to Wildlife BCF	Soil to Deer Mouse Concentration	Reference	TOTAL DEER MOUSE CONCENTRATION	Plant to Bird BCF	Plant to Bird Concentration	Reference	Soil to Bird BCF	Soil to Bird Concentration	Reference	TOTAL BIRD CONCENTRATION
Antimony	9.53E-01	2.20E-01	2.10E-01	Sample, 1998b	2.20E-01	2.10E-01	Sample, 1998b	2.00E-01	1.91E-01	Bechtel, 1998	5.99E-04	1.14E-04	EPA, 1999	1.44E-06	1.37E-06	Sample, 1998a	1.16E-04	5.99E-04	1.14E-04	EPA, 1999*	1.44E-06	1.37E-06	Sample, 1998a	1.16E-04
Barium	3.33E+02	2.20E-01	7.33E+01	Sample, 1998b	2.20E-01	7.33E+01	Sample, 1998b	1.50E-01	5.00E+01	Bechtel, 1998	8.99E-05	4.49E-03	EPA, 1999	2.16E-07	7.19E-05	Sample, 1998a	4.56E-03	8.99E-05	4.49E-03	EPA, 1999	2.16E-07	7.19E-05	Sample, 1998a	4.56E-03
Benzo(a)anthracene	1.16E-02	3.00E-02	3.48E-04	EPA, 1999	3.00E-02	3.48E-04	EPA, 1999	2.02E-02	2.34E-04	EPA, 1999	7.19E-03	1.68E-06	EPA, 1999	1.73E-05	2.01E-07	EPA, 1999	1.89E-06	4.20E-03	9.84E-07	EPA, 1999	1.35E-04	1.57E-06	EPA, 1999	2.55E-06
Benzo(a)pyrene	1.22E-02	7.00E-02	8.54E-04	EPA, 1999	7.00E-02	8.54E-04	EPA, 1999	1.01E-02	1.23E-04	EPA, 1999	2.03E-02	2.50E-06	EPA, 1999	4.86E-05	5.93E-07	EPA, 1999	3.09E-06	1.19E-02	1.47E-06	EPA, 1999	3.81E-04	4.65E-06	EPA, 1999	6.11E-06
Benzo(b)fluoranthene	9.41E-03	7.00E-02	6.59E-04	EPA, 1999	7.00E-02	6.59E-04	EPA, 1999	1.01E-02	9.50E-05	EPA, 1999	2.40E-02	2.28E-06	EPA, 1999	5.75E-05	5.41E-07	EPA, 1999	2.82E-06	1.40E-02	1.33E-06	EPA, 1999	4.50E-04	4.23E-06	EPA, 1999	5.57E-06
Benzo(g,h,i)perylene	2.41E-02	7.00E-02	1.69E-03	EPA, 1999*	7.00E-02	1.69E-03	EPA, 1999*	2.02E-02	4.87E-04	EPA, 1999*	5.31E-02	2.59E-05	EPA, 1999*	1.27E-04	3.06E-06	EPA, 1999*	2.89E-05	3.11E-02	1.51E-05	EPA, 1999*	9.98E-04	2.41E-05	EPA, 1999*	3.92E-05
Benzo(k)fluoranthene	1.58E-02	8.00E-02	1.26E-03	EPA, 1999	8.00E-02	1.26E-03	EPA, 1999	1.01E-02	1.60E-04	EPA, 1999	2.39E-02	3.81E-06	EPA, 1999	5.73E-05	9.05E-07	EPA, 1999	4.72E-06	1.39E-02	2.22E-06	EPA, 1999	4.48E-04	7.08E-06	EPA, 1999	9.30E-06
Cadmium	3.11E-02	9.60E-01	2.99E-02	Sample, 1998b	9.60E-01	2.99E-02	Sample, 1998b	3.64E-01	1.13E-02	Bechtel, 1998	7.19E-05	8.14E-07	EPA, 1999	1.73E-07	5.38E-09	Sample, 1998a	8.19E-07	4.71E-02	5.33E-04	EPA, 1999	1.51E-03	4.70E-05	EPA, 1999	5.80E-04
Chromium	1.52E+01	1.00E-02	1.52E-01	Sample, 1998b	1.00E-02	1.52E-01	Sample, 1998b	7.50E-03	1.14E-01	Bechtel, 1998	3.30E-03	3.76E-04	EPA, 1999	7.91E-06	1.20E-04	Sample, 1998a	4.96E-04	3.30E-03	3.76E-04	EPA, 1999	7.91E-06	1.20E-04	Sample, 1998a	4.96E-04
Chrysene	1.45E-02	4.00E-02	5.80E-04	EPA, 1999	4.00E-02	5.80E-04	EPA, 1999	1.87E-02	2.71E-04	EPA, 1999	8.27E-03	2.24E-06	EPA, 1999	1.99E-05	2.89E-07	EPA, 1999	2.53E-06	4.84E-03	1.31E-06	EPA, 1999	1.55E-04	2.25E-06	EPA, 1999	3.56E-06
Copper	1.21E+01	4.00E-02	4.85E-01	EPA, 1999	4.00E-02	4.85E-01	EPA, 1999	4.00E-01	4.85E+00	EPA, 1999	1.00E+00	4.85E+00	**	5.25E-02	6.36E-01	Sample, 1998a	5.48E+00	1.00E+00	4.85E+00	**	5.25E-02	6.36E-01	Sample, 1998a	5.48E+00
Fluoranthene	2.08E-02	7.00E-02	1.46E-03	EPA, 1999*	7.00E-02	1.46E-03	EPA, 1999*	2.02E-02	4.20E-04	EPA, 1999*	5.31E-02	2.23E-05	EPA, 1999*	1.27E-04	2.64E-06	EPA, 1999*	2.50E-05	3.11E-02	1.31E-05	EPA, 1999*	9.98E-04	2.08E-05	EPA, 1999*	3.38E-05
Indeno(1,2,3-cd)pyrene	5.51E-02	8.00E-02	4.41E-03	EPA, 1999	8.00E-02	4.41E-03	EPA, 1999	3.90E-03	2.15E-04	EPA, 1999	1.24E-01	2.66E-05	EPA, 1999	2.96E-04	1.64E-05	EPA, 1999	4.31E-05	7.24E-02	1.56E-05	EPA, 1999	2.32E-03	1.28E-04	EPA, 1999	1.43E-04
Lead	1.34E+01	3.00E-02	4.03E-01	EPA, 1999	3.00E-02	4.03E-01	EPA, 1999	4.50E-02	6.04E-01	EPA, 1999	1.80E-04	1.09E-04	EPA, 1999	4.32E-07	5.80E-06	EPA, 1999	1.15E-04	1.80E-04	1.09E-04	EPA, 1999	4.32E-07	5.80E-06	EPA, 1999	1.15E-04
Lithium	2.11E+01	1.00E+00	2.11E+01	**	1.00E+00	2.11E+01	**	1.00E+00	2.11E+01	**	1.00E+00	2.11E+01	**	1.00E+00	2.11E+01	**	4.23E+01	1.00E+00	2.11E+01	**	1.00E+00	2.11E+01	**	4.23E+01
Manganese	3.77E+02	6.05E-02	2.28E+01	Sample, 1998b	6.05E-02	2.28E+01	Sample, 1998b	7.92E-02	2.99E+01	Bechtel, 1998	1.00E+00	2.99E+01	**	1.00E+00	3.77E+02	**	4.07E+02	1.00E+00	2.99E+01	**	1.00E+00	3.77E+02	**	4.07E+02
Mercury	2.13E-02	8.50E+00	1.81E-01	Sample, 1998b	8.50E+00	1.81E-01	Sample, 1998b	1.37E-01	2.92E-03	Bechtel, 1998	4.68E-04	1.37E-06	EPA, 1999	1.12E-06	2.39E-08	Sample, 1998a	1.39E-06	1.59E-03	4.64E-06	EPA, 1999	5.12E-05	1.09E-06	EPA, 1999	5.73E-06
Phenanthrene	1.67E-02	7.00E-02	1.17E-03	EPA, 1999*	7.00E-02	1.17E-03	EPA, 1999*	2.02E-02	3.37E-04	EPA, 1999*	5.31E-02	1.79E-05	EPA, 1999*	1.27E-04	2.12E-06	EPA, 1999*	2.00E-05	3.11E-02	1.05E-05	EPA, 1999*	9.98E-04	1.67E-05	EPA, 1999*	2.72E-05
Pyrene	2.18E-02	7.00E-02	1.53E-03	EPA, 1999*	7.00E-02	1.53E-03	EPA, 1999*	2.02E-02	4.40E-04	EPA, 1999*	5.31E-02	2.34E-05	EPA, 1999*	1.27E-04	2.77E-06	EPA, 1999*	2.62E-05	3.11E-02	1.37E-05	EPA, 1999*	9.98E-04	2.18E-05	EPA, 1999*	3.55E-05
Zinc	2.47E+02	5.60E-01	1.38E+02	EPA, 1999	5.60E-01	1.38E+02	EPA, 1999	1.20E-12	2.96E-10	EPA, 1999	5.39E-05	1.60E-14	EPA, 1999	1.29E-07	3.19E-05	EPA, 1999	3.19E-05	3.89E-03	1.15E-12	EPA, 1999	1.25E-04	3.09E-02	EPA, 1999	3.09E-02
LPAH	1.67E-02	7.00E-02	1.17E-03	EPA, 1999*	7.00E-02	1.17E-03	EPA, 1999*	2.02E-02	3.37E-04	EPA, 1999*	5.31E-02	1.79E-05	EPA, 1999*	1.27E-04	2.12E-06	EPA, 1999*	2.00E-05	3.11E-02	1.05E-05	EPA, 1999*	9.98E-04	1.67E-05	EPA, 1999*	2.72E-05
HPAH	1.85E-01	7.00E-02	1.30E-02	EPA, 1999*	7.00E-02	1.30E-02	EPA, 1999*	2.02E-02	3.74E-03	EPA, 1999*	5.31E-02	1.99E-04	EPA, 1999*	1.27E-04	2.35E-05	EPA, 1999*	2.22E-04	3.11E-02	1.16E-04	EPA, 1999*	9.98E-04	1.85E-04	EPA, 1999*	3.01E-04
TOTAL PAHs	2.02E-01	7.00E-02	1.41E-02	EPA, 1999*	7.00E-02	1.41E-02	EPA, 1999*	2.02E-02	4.08E-03	EPA, 1999*	5.31E-02	2.17E-04	EPA, 1999*	1.27E-04	2.57E-05	EPA, 1999*	2.42E-04	3.11E-02	1.27E-04	EPA, 1999*	9.98E-04	2.02E-04	EPA, 1999*	3.29E-04

Notes:  
\* For BAFs and BCFs for LPAHs and HPAHs, the most conservative value for the individual PAHs was used to estimate food concentrations.  
\*\* If no BAF or BCF was available in the literature, a default value of 1.0 was used per EPA comments (EPA, 2009).

TABLE E-15  
RME CONCENTRATION OF CHEMICAL IN FOOD ITEM (mg/kg)

C <sub>food</sub> = C <sub>soil</sub> x BCF (or BAF)																									
where:																									
C <sub>food</sub> =	Chemical Concentration in food (mg/kg dry)																								
C <sub>soil</sub> =	Chemical Concentration in soil (mg/kg dry)																								
BCF =	Bioconcentration Factor (unitless)																								
BAF =	Bioaccumulation Factor (unitless)																								
Compound	RME Csoil (mg/kg)	Soil to Earthworm BCF	Earthworm Concentration	Reference	Soil to Arthropod BCF	Arthropod Concentration	Reference	Soil to Plant BAF	Plant/Fruit/Seed Concentration	Reference	Plant to Wildlife BCF	Plant to Deer Mouse Concentration	Reference	Soil to Wildlife BCF	Soil to Deer Mouse Concentration	Reference	TOTAL DEER MOUSE CONCENTRATION	Plant to Bird BCF	Plant to Bird Concentration	Reference	Soil to Bird BCF	Soil to Bird Concentration	Reference	TOTAL BIRD CONCENTRATION	
Antimony	2.19E+00	2.20E-01	4.82E-01	Sample, 199f	2.20E-01	4.82E-01	Sample, 19f	2.00E-01	4.38E-01	Bechtel, 199f	5.99E-04	2.62E-04	EPA, 1999	1.44E-06	3.15E-06	Sample, 1998a	2.66E-04	5.99E-04	2.62E-04	EPA, 1999*	1.44E-06	3.15E-06	Sample, 199f	2.66E-04	
Barium	5.02E+02	2.20E-01	1.11E+02	Sample, 199f	2.20E-01	1.11E+02	Sample, 19f	1.50E-01	7.53E+01	Bechtel, 199f	8.99E-05	6.77E-03	EPA, 1999	2.16E-07	1.08E-04	Sample, 1998a	6.88E-03	8.99E-05	6.77E-03	EPA, 1999	2.16E-07	1.08E-04	Sample, 199f	6.88E-03	
Benzo(a)anthracene	4.57E-02	3.00E-02	1.37E-03	EPA, 1999	3.00E-02	1.37E-03	EPA, 1999	2.02E-02	9.23E-04	EPA, 1999	7.19E-03	6.64E-06	EPA, 1999	1.73E-05	7.91E-07	EPA, 1999	7.43E-06	4.20E-03	3.88E-06	EPA, 1999	1.35E-04	6.17E-06	EPA, 1999	1.00E-05	
Benzo(a)pyrene	4.31E-02	7.00E-02	3.02E-03	EPA, 1999	7.00E-02	3.02E-03	EPA, 1999	1.01E-02	4.35E-04	EPA, 1999	2.03E-02	8.84E-06	EPA, 1999	4.86E-05	2.09E-06	EPA, 1999	1.09E-05	1.19E-02	5.18E-06	EPA, 1999	3.81E-04	1.64E-05	EPA, 1999	2.16E-05	
Benzo(b)fluoranthene	3.25E-02	7.00E-02	2.28E-03	EPA, 1999	7.00E-02	2.28E-03	EPA, 1999	1.01E-02	3.28E-04	EPA, 1999	2.40E-02	7.88E-06	EPA, 1999	5.75E-05	1.87E-06	EPA, 1999	9.75E-06	1.40E-02	4.60E-06	EPA, 1999	4.50E-04	1.46E-05	EPA, 1999	1.92E-05	
Benzo(g,h,i)perylene	5.27E-02	7.00E-02	3.69E-03	EPA, 1999*	7.00E-02	3.69E-03	EPA, 1999*	2.02E-02	1.06E-03	EPA, 1999*	5.31E-02	5.65E-05	EPA, 1999*	1.27E-04	6.69E-06	EPA, 1999*	6.32E-05	3.11E-02	3.31E-05	EPA, 1999*	9.98E-04	5.26E-05	EPA, 1999*	8.57E-05	
Benzo(k)fluoranthene	5.95E-02	8.00E-02	4.76E-03	EPA, 1999	8.00E-02	4.76E-03	EPA, 1999	1.01E-02	6.01E-04	EPA, 1999	2.39E-02	1.44E-05	EPA, 1999	5.73E-05	3.41E-06	EPA, 1999	1.78E-05	1.39E-02	8.35E-06	EPA, 1999	4.48E-04	2.67E-05	EPA, 1999	3.50E-05	
Cadmium	1.10E-01	9.60E-01	1.06E-01	Sample, 199f	9.60E-01	1.06E-01	Sample, 19f	3.64E-01	4.00E-02	Bechtel, 199f	7.19E-05	2.88E-06	EPA, 1999	1.73E-07	1.90E-08	Sample, 1998a	2.90E-06	4.71E-02	1.89E-03	EPA, 1999	1.51E-03	1.66E-04	EPA, 1999	2.05E-03	
Chromium	1.70E+01	1.00E-02	1.70E-01	Sample, 199f	1.00E-02	1.70E-01	Sample, 19f	7.50E-03	1.27E-01	Bechtel, 199f	3.30E-03	4.20E-04	EPA, 1999	7.91E-06	1.34E-04	Sample, 1998a	5.54E-04	3.30E-03	4.20E-04	EPA, 1999	7.91E-06	1.34E-04	Sample, 199f	5.54E-04	
Chrysene	4.77E-02	4.00E-02	1.91E-03	EPA, 1999	4.00E-02	1.91E-03	EPA, 1999	1.87E-02	8.92E-04	EPA, 1999	8.27E-03	7.38E-06	EPA, 1999	1.99E-05	9.49E-07	EPA, 1999	8.33E-06	4.84E-03	4.32E-06	EPA, 1999	1.55E-04	7.39E-06	EPA, 1999	1.17E-05	
Copper	1.44E+01	4.00E-02	5.76E-01	EPA, 1999	4.00E-02	5.76E-01	EPA, 1999	4.00E-01	5.76E+00	EPA, 1999	1.00E+00	5.76E+00	**	5.25E-02	7.57E-01	Sample, 1998a	6.52E+00	1.00E+00	5.76E+00	**	5.25E-02	7.57E-01	Sample, 199f	6.52E+00	
Fluoranthene	1.56E-01	7.00E-02	1.09E-02	EPA, 1999*	7.00E-02	1.09E-02	EPA, 1999*	2.02E-02	3.15E-03	EPA, 1999*	5.31E-02	1.67E-04	EPA, 1999*	1.27E-04	1.98E-05	EPA, 1999*	1.87E-04	3.11E-02	9.80E-05	EPA, 1999*	9.98E-04	1.56E-04	EPA, 1999*	2.54E-04	
Indeno(1,2,3-cd)pyrene	4.17E-01	8.00E-02	3.34E-02	EPA, 1999	8.00E-02	3.34E-02	EPA, 1999	3.90E-03	1.63E-03	EPA, 1999	1.24E-01	2.02E-04	EPA, 1999	2.98E-04	1.24E-04	EPA, 1999	3.26E-04	7.24E-02	1.18E-04	EPA, 1999	2.32E-03	9.67E-04	EPA, 1999	1.09E-03	
Lead	1.43E+01	3.00E-02	4.30E-01	EPA, 1999	3.00E-02	4.30E-01	EPA, 1999	4.50E-02	6.45E-01	EPA, 1999	1.80E-04	1.16E-04	EPA, 1999	4.32E-07	6.19E-06	EPA, 1999	1.22E-04	1.80E-04	1.16E-04	EPA, 1999	4.32E-07	6.19E-06	EPA, 1999	1.22E-04	
Lithium	2.41E+01	1.00E+00	2.41E+01	**	1.00E+00	2.41E+01	**	1.00E+00	2.41E+01	**	1.00E+00	2.41E+01	**	1.00E+00	2.41E+01	**	4.83E+01	1.00E+00	2.41E+01	**	1.00E+00	2.41E+01	**	4.83E+01	
Manganese	4.32E+02	6.05E-02	2.61E+01	Sample, 199f	6.05E-02	2.61E+01	Sample, 19f	7.92E-02	3.42E+01	Bechtel, 199f	1.00E+00	3.42E+01	**	1.00E+00	4.32E+02	**	4.66E+02	1.00E+00	3.42E+01	**	1.00E+00	4.32E+02	**	4.66E+02	
Mercury	2.41E-02	8.50E+00	2.05E-01	Sample, 199f	8.50E+00	2.05E-01	Sample, 19f	1.37E-01	3.30E-03	Bechtel, 199f	4.68E-04	1.12E-06	1.55E-06	EPA, 1999	1.27E-04	2.70E-08	Sample, 1998a	1.57E-06	1.59E-03	5.25E-06	EPA, 1999	5.12E-05	1.23E-06	EPA, 1999	6.48E-06
Phenanthrene	1.37E-01	7.00E-02	9.59E-03	EPA, 1999*	7.00E-02	9.59E-03	EPA, 1999*	2.02E-02	2.77E-03	EPA, 1999*	5.31E-02	1.47E-04	EPA, 1999*	1.27E-04	1.74E-05	EPA, 1999*	1.64E-04	3.11E-02	8.61E-05	EPA, 1999*	9.98E-04	1.37E-04	EPA, 1999*	2.23E-04	
Pyrene	7.28E-02	7.00E-02	5.10E-03	EPA, 1999*	7.00E-02	5.10E-03	EPA, 1999*	2.02E-02	1.47E-03	EPA, 1999*	5.31E-02	7.81E-05	EPA, 1999*	1.27E-04	9.25E-06	EPA, 1999*	8.73E-05	3.11E-02	4.57E-05	EPA, 1999*	9.98E-04	7.27E-05	EPA, 1999*	1.18E-04	
Zinc	9.69E+02	5.60E-01	5.43E+02	EPA, 1999	5.60E-01	5.43E+02	EPA, 1999	1.20E-12	1.16E-09	EPA, 1999	5.39E-05	6.27E-14	EPA, 1999	1.29E-07	1.25E-04	EPA, 1999	1.25E-04	3.89E-03	4.52E-12	EPA, 1999	1.25E-04	1.21E-01	EPA, 1999	1.21E-01	
LPAH	1.37E-01	7.00E-02	9.59E-03	EPA, 1999*	7.00E-02	9.59E-03	EPA, 1999*	2.02E-02	2.77E-03	EPA, 1999*	5.31E-02	1.47E-04	EPA, 1999*	1.27E-04	1.74E-05	EPA, 1999*	1.64E-04	3.11E-02	8.61E-05	EPA, 1999*	9.98E-04	1.37E-04	EPA, 1999*	2.23E-04	
HPAH	9.27E-01	7.00E-02	6.49E-02	EPA, 1999*	7.00E-02	6.49E-02	EPA, 1999*	2.02E-02	1.87E-02	EPA, 1999*	5.31E-02	9.94E-04	EPA, 1999*	1.27E-04	1.18E-04	EPA, 1999*	1.11E-03	3.11E-02	5.82E-04	EPA, 1999*	9.98E-04	9.25E-04	EPA, 1999*	1.51E-03	
TOTAL PAHs	1.06E+00	7.00E-02	7.45E-02	EPA, 1999*	7.00E-02	7.45E-02	EPA, 1999*	2.02E-02	2.15E-02	EPA, 1999*	5.31E-02	1.14E-03	EPA, 1999*	1.27E-04	1.35E-04	EPA, 1999*	1.28E-03	3.11E-02	6.68E-04	EPA, 1999*	9.98E-04	1.06E-03	EPA, 1999*	1.73E-03	

Notes:  
\* For BAFs and BCFs for LPAHs and HPAHs, the most conservative value for the individual PAHs was used to estimate food concentrations.  
\*\* If no BAF or BCF was available in the literature, a default value of 1.0 was used per EPA comments (EPA, 2009).